Duplicate publication in radiology journals

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Purpose:

To evaluate the rate of duplicate publication in radiology journals. Secondary objective was to evaluate the sensitivity of iThenticate®.

Methods:

From January 1993 to December 2013, Déjà Vu (a database of highly similar citations) and Pubmed were used to search for similar citations in 53 radiology journals. Citations were screened independently by two reviewers and verified by a third using pre-defined criteria to determine true cases of duplicate publication. The overall rate of duplicate publication was calculated; analysis of rate by journal, impact factor, and publication year was performed. iThenticate® was used to analyze all identified duplicate publications.

Results:

From 128,818 citations in the included journals, 1,786 (Déjà Vu) and 104 (Pubmed) were flagged as potential duplicates. Of these, 247 (226 from Déjà Vu, 21 from Pubmed) were classified as true duplicate publications after application of our criteria. The overall rate was 1.92/1,000 citations; it varied widely across journals from 0 to over 10/1,000 citations, showed no correlation with impact factor ($R^2=0.06; p=0.093$), and no change over time ($R^2=0.28; p=0.515$). iThenticate® flagged 153/247 (61.9%) duplicates as 'possible duplicates' (defined as overall percent match >30%) and identified the corresponding duplicate citation pair in 140/247 (56.7%); in 98 of these, the duplicate citation pair was the highest percent similarity match.

Conclusion:

Duplicate publications in radiology journals are uncommon. The rate varies widely between journals, but was not associated with journal impact factor or change over time. iThenticate® shows promise for identification of duplicate publications; however refinements may be necessary to maximize its effectiveness.